FACT SHEET

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PATRIOT ADVANCED CAPABILITY-3 SYSTEM FLIGHT TEST PROGRAM

U.S. BALLISTIC MISSILE DEFENSE STRATEGY & PAC-3

Over the past decade the threat posed by theater ballistic missiles (TBMs)has increased dramatically, as regional aggressors have sought to obtain these weapons in their efforts to increase their regional influence. As a result, the United States has sought to counter this trend by improving its theater missile defense (TMD) capabilities. In doing so, the U.S. hopes to accomplish two tasks: (1) providing TMD to protect U.S. forces, allies and assets abroad; and (2) obviating any advantage an aggressor gains through acquiring TBMs, by providing a workable defense, thereby devaluing ballistic missiles as offensive weapons.

The Patriot Advanced Capability-3 (PAC-3) system is a critical first step in this strategy as an element of the Ballistic Missile Defense Organization's (BMDO) TMD programs. The PAC-3 system will serve as the lower-tier, land-based air defense element of the overall TMD defense network. PAC-3 is a short to medium range low-altitude hit-to-kill system intended to operate in conjunction will other longer-range TBM systems in order to provide U.S. forces with an effective, multilayered defense against a variety of airborne threats.

Once integrated into this multitiered TMD configuration, PAC-3 will provide added depth to force protection, protect specific

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targets against threats and intensify air defense coverage over critical areas of operation. PAC-3 will protect against those TBMs which have "leaked" through upper-tier coverage, as well as those threats which approach beneath projected upper-tier engagement envelopes (such as cruise missiles and other air-breathing threats). PAC-3 will serve as America's primary TMD system through the next decade.

PAC-3 System Flight Test Program

In order to adequately demonstrate system effectiveness prior to deployment, the PAC-3 will undergo a rigorous test program consisting of component testing, hardware-in-the-loop (HWIL) simulations, and flight testing. Individual component testing is intended to improve performance and reliability, ultimately resulting in improved confidence in actual flight testing.

The primary change to the PATRIOT system made under PAC-3 Configuration III is the integration of the PAC-3 missile. This missile is a productionized version of the Extended Range Interceptor (ERINT) that successfully demonstrated the hit-to-kill concept.

The PATRIOT PAC-3 program is presently engaged in a comprehensive flight test regime designed to verify system technical and operational performance against a full range of air breathing and theater ballistic missile (TBM) targets. The first two flight tests, Developmental Tests (DT) 1 and 2 were controlled flight tests. The controlled flight tests on September 29, 1997, and December 17, 1997, assessed the performance of the missile during fly-out along a pre-programmed trajectory while performing designated maneuvers and functions. No target participated in the test. The seeker characterization flight (SCF) was conducted on March 15, 1999. The SCF flight test objectives focused on demonstrating missile seeker performance against a threat representative TBM target. While an intercept was not the principle test objective, the missile successfully intercepted and destroyed the TBM target.

The PAC-3 Radar Unit.

The PATRIOT PAC-3 program has continued to build on the success of the first two flight tests with four successive intercepts of TBM and air-breathing targets under increasingly stressing scenarios. On September 16, 1999, DT-3 resulted in the successful intercept of a TBM representative target. For DT-5, executed on March 15, 2000, the PATRIOT System again successfully intercepted a TBM representative target using more sophisticated flight software. The first flight test against an air-breathing target occurred during DT-7 on July 22, 2000. The target represented a low-flying cruise missile. The test demonstrated the ability of the system to identify, track, and intercept a target flying close to the ground to mask its approach. The PAC-3 program achieved another milestone during DT-6 on October 14, 2000, with the successful demonstration of the first multi-simultaneous engagement of both a maneuvering TBM and a surrogate aircraft target.

Future developmental tests will continue to increase in complexity and rigor to demonstrate a range of system performance capabilities under controlled conditions. Upon successfully demonstrating system technical maturity and readiness, the system will be put through several stressing operational tests to assess system performance under operation conditions. The results of these operational tests provide the basis for a decision to transition the program to full rate production and fielding in the near future.

Conclusion

A successful PAC-3 flight test program is a primary BMDO goal for the coming year. Completion of the program and the subsequent fielding of the PAC-3 system will mark the crucial first step in the activation of the core TMD programs.

PAC-3 builds on proven systems, adding crucial advances to provide America's military with an effective, robust lower-tier defense against ballistic missiles. As the first element of BMDO's core TMD systems to reach operational status, PAC-3 is a crucial milestone for the U.S. BMD effort as a whole.

The first Army unit is expected to be equipped with the PAC-3 in mid-2001.

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